



VERIFICATION OF TRANSLATION

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declare as follows:

1. That I am well acquainted with both the English and Japanese languages, and
2. That the attached document is a true and correct translation made by me to the best of my knowledge and belief of:-

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Masao Matsumoto

Page (1)

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Page (2)

[THE NAME OF DOCUMENT] SPECIFICATION

[TITLE OF THE INVENTION] SHOP INFORMATION ADVERTISEMENT  
PANEL SYSTEM AND SHOP INFORMATION ADVERTISEMENT METHOD

[CLAIM]

[CLAIM 1] A shop information advertisement panel system having a plurality of shop terminals, an advertisement panel control terminal, connected with the respective shop terminals through a communication network, and a plurality of advertisement panel devices provided for every shop terminal, wherein

said respective shop terminals comprise

an advertisement information registration requesting unit for requesting the advertisement panel control terminal to register image information expressing an advertisement image to be displayed on the advertisement panel device corresponding to its own shop terminal, through the communication network; and

an advertisement information update requesting unit for requesting the advertisement panel control terminal to update the image information corresponding to the shop terminal itself, which is registered in the advertisement panel control terminal, through the communication network;

said advertisement panel control terminal comprises

an advertisement information storing unit;

an advertisement information registering unit for registering the image information requested to be registered by the shop terminal in the advertisement information storing unit,

an advertisement information updating unit for updating the image information corresponding to the shop

Page (3)

terminal having made an update request, of the image information registered in the advertisement information storing unit, according to the update request of the image information from the shop terminal; and

a display controlling unit for sending the image information corresponding to the advertisement panel device registered in the advertisement information storing unit to the advertisement panel device;

said respective advertisement panel devices comprise

an advertisement display unit for displaying an advertisement according to the image information sent from the advertisement panel control terminal.

[CLAIM 2] A shop information advertisement panel system having a plurality of shop terminals, an advertisement panel control terminal, connected with the respective shop terminals through a communication network, a plurality of advertisement panel devices provided for every shop terminal, and an information portable unit, wherein

said respective shop terminals comprise

an advertisement information registration requesting unit for requesting the advertisement panel control terminal to register advertisement information including image information expressing an advertisement image to be displayed on the advertisement panel device corresponding to its own shop terminal and detailed information on the shop where this shop terminal is provided, through the communication network; and

an advertisement information update requesting unit for requesting the advertisement panel control terminal to update the advertisement information

Page (4)

corresponding to the shop terminal itself, which is registered in the advertisement panel control terminal, through the communication network;

said advertisement panel control terminal comprises

an advertisement information storing unit;

an advertisement information registering unit for registering the advertisement information requested to be registered by the shop terminal in the advertisement information storing unit,

an advertisement information updating unit for updating the advertisement information corresponding to the shop terminal having made an update request, of the advertisement information registered in an advertisement information storing unit, according to the update request of the advertisement information from the shop terminal;

a display controlling unit for sending the image information of the advertisement information corresponding to the advertisement panel device registered in the advertisement information storing unit to the advertisement panel device; and

a detailed information referring unit for, when the advertisement panel device makes a reference request of the detailed information, sending the detailed information corresponding to the advertisement panel device making the reference request of the detailed information, of the registered advertisement information, to the advertisement panel device making the reference request;

said respective advertisement panel devices comprise

Page (5)

an advertisement display unit for displaying an advertisement according to the image information sent from the advertisement panel control terminal; and

a sending/receiving unit for portable unit for, upon receipt of a reference request of the detailed information from the information portable unit, issuing the reference request of the detailed information to the advertisement panel control terminal and sending the detailed information sent from the advertisement panel control terminal to said information portable unit,

said information portable unit comprise

a display unit; and

a detailed information requesting unit for sending the reference request of the detailed information to the advertisement panel device according to a user's instruction, and displaying the received detailed information to the display unit.

[CLAIM 3] The shop information advertisement panel system according to claim 2, wherein

said detailed information consists of a plurality of items,

said detailed information referring unit

sends an item list of the detailed information corresponding to the advertisement panel device, of the registered detailed information, to the advertisement panel device having made a reference request when the reference request of the detailed information was made by the same advertisement panel device, and sends the content of an item corresponding to an item name to the advertisement panel device when the item name of the item list was notified by the same advertisement panel device,

said sending/receiving unit for portable unit issues a reference request of the detailed information to the advertisement panel control terminal, sends an item list to said information portable unit, upon receipt of the item list of the detailed information from the advertisement panel control terminal, notifies an item name to said detailed information referring unit, upon receipt of the item name from said information portable unit, and sends the content of an item sent from said detailed information referring unit to said information portable unit, and said detailed information requesting unit sends a reference request of the detailed information to the advertisement panel device according to a user's instruction, displays an item list upon receipt of the item list of the detailed information, sends an item name of an item specified by a user to the advertisement panel device, and receives and displays the content of the item sent from the advertisement panel device.

[CLAIM 4] The shop information advertisement panel system according to claim 3, wherein

said advertisement panel control terminal comprises an access history storing unit for storing an access history indicating access state of each item of the registered detailed information, and

said detailed information referring unit updates the access history stored in said access history storing unit based on an item name notified from the advertisement panel device.

[CLAIM 5] The shop information advertisement panel system according to claim 3, wherein

Page (7)

said detailed information includes reservation information indicating reservation state,

said information portable unit comprises a reservation requesting unit for sending reservation requesting information to the advertisement panel device,

said sending/receiving unit for portable unit sends the reservation requesting information to the advertisement panel control terminal, upon receipt of the reservation requesting information,

said advertisement panel control terminal comprises a reservation request sending/receiving unit for sending the reservation requesting information sent from said sending/receiving unit for portable unit to the shop terminal corresponding to the advertisement panel device, and

said shop terminal comprises a reservation controlling unit for controlling the reservation information indicating the reservation state and updating the reservation information based on the received reservation requesting information.

[CLAIM 6] A computer readable memory storing a program executed by a computer for a shop terminal, a program executed by a computer for an advertisement panel control terminal having an advertisement information storing unit, wherein

said program executed by a computer for a shop terminal comprising the functions of

an advertisement information registration requesting function of requesting the advertisement panel control terminal to register image information expressing an advertisement image to be displayed on the advertisement panel device corresponding to its own shop



terminal, through the communication network, and

an advertisement information update requesting function of requesting the advertisement panel control terminal to update the image information corresponding to the shop terminal itself, which is registered in the advertisement panel control terminal, through the communication network,

said program executed by a computer for an advertisement panel control terminal comprising the functions of

an advertisement information registering function of registering the image information requested to be registered by the shop terminal in the advertisement information storing unit,

an advertisement information updating function of updating the image information corresponding to the shop terminal having made an update request, of the image information registered in the advertisement information storing unit, according to the update request of the image information from the shop terminal; and

a display controlling function of sending the image information corresponding to the advertisement panel device registered in the advertisement information storing unit to the advertisement panel device.

[DETAILED DESCRIPTION OF THE INVENTION]

[0001]

[FIELD OF THE INVENTION]

The present invention relates to a shop information advertisement panel system for advertising a shop, and more particularly to a shop information advertisement panel system capable of easily updating an advertisement image to be displayed.

[0002]

[PRIOR ART]

Heretofore, an advertisement panel system provided with a display such as a CRT, LCD, or the like is usually set at a shop and at busy streets in front of a station or the like, so to display the advertisement of the shop. The conventional advertisement panel system is designed in that image information expressing an advertisement image is stored in a memory installed therein, hence to display the advertisement image according to the content of the memory. Accordingly, in the case of changing the advertisement image, an advertiser has to go to the setting place of the advertisement panel so as to rewrite the content of the memory.

[0003]

[PROBLEMS TO BE SOLVED BY THE INVENTION]

As mentioned above, in the case of changing an advertisement image, the conventional technique imposes a lot of burden on an advertiser because he or she must go to the setting place of the advertisement panel system and rewrite the memory content thereof, and this also disturbs immediate update of the advertisement image.

[0004]

An object of the present invention is to provide a shop information advertisement panel system capable of updating an advertisement image quickly and lessening the burden of an advertiser.

[0005]

[MEANS TO SOLVE THE PROBLEM]

According to the present invention for achieving

Page (10)

the above-mentioned object, a shop information advertisement panel system having a plurality of shop terminals, an advertisement panel control terminal, connected with the respective shop terminals through a communication network, and a plurality of advertisement panel devices provided for every shop terminal, wherein

the respective shop terminals comprise

an advertisement information registration requesting unit for requesting the advertisement panel control terminal to register image information expressing an advertisement image to be displayed on the advertisement panel device corresponding to its own shop terminal, through the communication network; and

an advertisement information update requesting unit for requesting the advertisement panel control terminal to update the image information corresponding to the shop terminal itself, which is registered in the advertisement panel control terminal, through the communication network;

the advertisement panel control terminal comprises

an advertisement information storing unit;

an advertisement information registering unit for registering the image information requested to be registered by the shop terminal in the advertisement information storing unit,

an advertisement information updating unit for updating the image information corresponding to the shop terminal having made an update request, of the image information registered in the advertisement information storing unit, according to the update request of the image information from the shop terminal; and

Page (11)

a display controlling unit for sending the image information corresponding to the advertisement panel device registered in the advertisement information storing unit to the advertisement panel device;

the respective advertisement panel devices comprise

an advertisement display unit for displaying an advertisement according to the image information sent from the advertisement panel control terminal.

[0006]

According to this invention, it is possible to register and update the image information through a communication network by using an advertisement information registration requesting unit and an advertisement information update requesting unit. Therefore, an advertiser doesn't need to go to a setting place of an advertisement panel system, which lessens the burden of an advertiser and enables quick update of an advertisement image.

[0007]

Another object of the present invention is to provide a shop information advertisement panel system capable of presenting not only an advertisement image but also a detailed described map of a shop and detailed information such as reservation state to a user. According to the present invention for achieving the above-mentioned object, a shop information advertisement panel system having a plurality of shop terminals, an advertisement panel control terminal, connected with the respective shop terminals through a communication network, a plurality of advertisement panel devices provided for every shop terminal, and an information

portable unit, wherein

the respective shop terminals comprise  
an advertisement information registration  
requesting unit for requesting the advertisement panel  
control terminal to register advertisement information  
including image information expressing an advertisement  
image to be displayed on the advertisement panel device  
corresponding to its own shop terminal and detailed  
information on the shop where this shop terminal is  
provided, through the communication network; and

an advertisement information update requesting  
unit for requesting the advertisement panel control  
terminal to update the advertisement information  
corresponding to the shop terminal itself, which is  
registered in the advertisement panel control terminal,  
through the communication network;

the advertisement panel control terminal  
comprises

an advertisement information storing unit;

an advertisement information registering unit for  
registering the advertisement information requested to  
be registered by the shop terminal in the advertisement  
information storing unit,

an advertisement information updating unit for  
updating the advertisement information corresponding to  
the shop terminal having made an update request, of the  
advertisement information registered in an advertisement  
information storing unit, according to the update  
request of the advertisement information from the shop  
terminal;

a display controlling unit for sending the image  
information of the advertisement information

Page (13)

corresponding to the advertisement panel device registered in the advertisement information storing unit to the advertisement panel device; and

a detailed information referring unit for, when the advertisement panel device makes a reference request of the detailed information, sending the detailed information corresponding to the advertisement panel device making the reference request of the detailed information, of the registered advertisement information, to the advertisement panel device making the reference request;

the respective advertisement panel devices comprise

an advertisement display unit for displaying an advertisement according to the image information sent from the advertisement panel control terminal; and

a sending/receiving unit for portable unit for, upon receipt of a reference request of the detailed information from the information portable unit, issuing the reference request of the detailed information to the advertisement panel control terminal and sending the detailed information sent from the advertisement panel control terminal to the information portable unit,

the information portable unit comprise

a display unit; and

a detailed information requesting unit for sending the reference request of the detailed information to the advertisement panel device according to a user's instruction, and displaying the received detailed information to the display unit.

[0008]

According to this invention, when a user sends a

reference request of the detailed information to an advertisement panel system displaying the user's interesting advertisement image, using an information portable unit, the reference request is sent to an advertisement panel control terminal through the advertisement panel system and the detailed information relative to the advertisement image is sent from the advertisement panel control terminal through the advertisement panel system, which enables the user to get the detailed information at ease.

[0009]

According to the present invention for providing a shop information advertisement panel system in which an advertiser can obtain necessary information for the future commercial activities, the advertisement panel control terminal comprises an access history storing unit for storing an access history indicating access state of each item of the registered detailed information, and the detailed information referring unit updates the access history stored in the access history storing unit based on an item name notified from the advertisement panel device.

[0010]

Also, according to this invention, access history showing access state of each item of the detailed information is stored in an access history storing unit, which enables an advertiser to get useful and necessary information for the future commercial activities.

[0011]

According to the present invention for providing a shop information advertisement panel system in which a user can make a reservation at ease, the detailed

Page (15)

information includes reservation information indicating reservation state, the information portable unit comprises a reservation requesting unit for sending reservation requesting information to the advertisement panel device, the sending/receiving unit for portable unit sends the reservation requesting information to the advertisement panel control terminal, upon receipt of the reservation requesting information, the advertisement panel control terminal comprises a reservation request sending/receiving unit for sending the reservation requesting information sent from the sending/receiving unit for portable unit to the shop terminal corresponding to the advertisement panel device, and the shop terminal comprises a reservation controlling unit for controlling the reservation information indicating the reservation state and updating the reservation information based on the received reservation requesting information.

[0012]

Also, according to this structure, when a user sends a reservation requesting information to an advertisement panel system showing an advertisement image of a shop the user wants to reserve, using an information portable unit, the reservation requesting information is sent to a shop terminal corresponding to the advertisement panel system through the advertisement panel system, an advertisement panel control terminal, and a communication network, which enables a user to make a reservation at ease.

[0013]

[THE EMBODIED CONFIGURATION OF THE INVENTION]

In the following, a preferred embodiment of the



present invention will be described in detail with reference to the drawings.

[0014]

Fig. 1 is a block diagram showing a first embodiment of the present invention, which comprises a plurality of shop terminals 1-1 to 1-n, an advertisement panel control terminal 2, a plurality of advertisement panel systems 3-1 to 3-n for the respective shop terminals 1-1 to 1-n, an information portable unit 4, a communication network 5 such as Internet for mutually connecting the shop terminals 1-1 to 1-n with the advertisement panel control terminal 2.

[0015]

The shop terminal 1-1 can be realized by a personal computer or the like set at a shop, which includes an advertisement information registration requesting unit 11-1, an advertisement information update requesting unit 12-1, an input/output unit 13-1 such as a key board and a CRT, and a storing medium 14-1. The other shop terminals have the identical structure.

[0016]

The advertisement information registration requesting unit 11-1 has a function of requesting the advertisement panel control terminal 2 to register advertisement information through the communication network 5. The advertisement information includes image information expressing an advertisement image to be shown on the advertisement panel system 3-1 and detailed information to be shown on the information portable unit 4 carried by a user in reply to the request of the user. The image information includes, for example, exterior/interior image of a shop and images of handling

goods. The detailed information includes various information on a plurality of items for introducing a shop in detail, such as map information showing the site of the shop, reservation information showing the state of reservation, and sale information showing the goods in the sale.

[0017]

The advertisement information update requesting unit 12-1 has a function of requesting the advertisement panel control terminal 2 to update the advertisement information through the communication network 5.

[0018]

The storing medium 14-1 is realized by a disk, a semiconductor memory, or the other storing medium, where a program for working a computer as the shop terminal 1-1 is stored. This program is read out by a computer, so to control the operation of the computer, thereby realizing the advertisement information registration requesting unit 11-1 and the advertisement information update requesting unit 12-1.

[0019]

The advertisement panel control terminal 2 is realized by a computer or the like, which includes an advertisement information controlling unit 21, an advertisement information storing unit 22, an access history storing unit 23, and a storing medium 24.

[0020]

The advertisement information controlling unit 21 includes an advertisement information registering unit 211, an advertisement information updating unit 212, a detail information referring unit 213, a plurality of display controlling unit 214-1 to 214-n for the

respective advertisement panel systems 3-1 to 3-n.

[0021]

The advertisement information which the respective shop terminals 1-1 to 1-n request to register is stored in the advertisement information storing unit 22.

[0022]

The access history showing the access state of each item of the detailed information registered in the advertisement information storing unit 22 is stored in the access history storing unit 23.

[0023]

The advertisement information registering unit 211 has a function of registering the advertisement information into the advertisement information storing unit 22 according to a registration request from the respective shop terminal 1-1 to 1-n.

[0024]

The advertisement information updating unit 212 has a function of updating the advertisement information registered in the advertisement information storing unit 22, according to an update request from the respective shop terminals 1-1 to 1-n.

[0025]

The detailed information referring unit 213 has a function of sending an item list of the detailed information of the shop terminal 1-i registered in the advertisement information storing unit 22 to the advertisement panel system 3-i ( $1 \leq i \leq n$ ), in reply to a reference request to the detailed information from the information portable unit 4, through the advertisement panel system 3-i, a function of sending the content of

Page (19)

the item name, of the respective items of the detailed information of the shop terminal 1-i, in reply to an item name sent from the information portable unit 4 through the advertisement panel system 3-i, and a function of updating the access history stored in the access history storing unit 23, according to the item name notified from the advertisement panel system 3-i.

[0026]

The respective display controlling unit 214-1 to 214-n have a function of sending the image information of the shop terminals 1-1 to 1-n registered in the advertisement information storing unit 22 to the respective advertisement panel systems 3-1 to 3-n.

[0027]

The storing medium 24 is realized by a disk, a semiconductor memory, or the other storing medium, where a program for working a computer as the advertisement panel control terminal 2 is stored. This program is read out by the computer, so to control the operation of the computer, thereby realizing the advertisement information registering unit 211, the advertisement information updating unit 212, the detail information referring unit 213, and the display controlling unit 214-1 to 214-n.

[0028]

The advertisement panel system 3-1 is to be set near a shop or at busy streets in front of a station, which includes a sending/receiving unit for portable unit 31-1 and an advertisement displaying unit 32-1. The other advertisement panel systems have the identical structure.

[0029]

The sending/receiving unit for portable unit 31-1 has a function of sending the information sent from the information portable unit 4 by wireless communication (electric waves and infrared rays) and sending the information sent from the advertisement panel control terminal 2 by wireless communication to the information portable unit 4.

[0030]

The advertisement displaying unit 32-1 is realized by a CRT, LCD, or the like, which has a function of displaying an image according to the image information sent from the display controlling unit 214-1.

[0031]

The information portable unit 4 includes a display unit 41 such as a LCD, an operation unit 42 formed by a touch panel and a key, a detailed information requesting unit 43, and a sending/receiving unit 44.

[0032]

The sending/receiving unit 44 has a function of exchanging data with the advertisement panel system 3-i by wireless communication.

[0033]

The detailed information requesting unit 43 has a function of sending a detailed information reference request and an item name to the advertisement panel system through the sending/receiving unit 44, according to a user's instruction and a function of displaying the item list and the detailed information the sending/receiving unit 44 receives, on the display unit 41. The detailed information requesting unit 43 is realized by, for example, a micro processor and a

storing medium such as a disk or a semiconductor memory storing a program for working the micro processor as the detailed information requesting unit 43. The program stored in the storing medium is read out by the micro processor, so to control the operation of the micro processor, thereby realizing the detailed information requesting unit 43 on the micro processor.

[0034]

This time, the operation of the embodiment will be described.

[0035]

The operation at a time of advertisement information registration will be described by taking an example of the case of registering the advertisement information from the shop terminal 1-1. An advertiser owning the shop terminal 1-1 activates the advertisement information registration requesting unit 11-1 by using the input/output unit 13-1, when registering the advertisement information.

[0036]

The advertisement information registration requesting unit 11-1 displays an input screen of a file name on the input/output unit 13-1 (Step A1), as shown in the flow chart of Fig. 2. The file name input screen contains, for example, an input section 131 and a send button 132, as shown in Fig. 3. The input section 131 consists of several items such as showing image information (advertisement image) and showing each item of detailed information (map, special menu, etc.).

[0037]

When the file name input screen as shown in Fig. 3 is displayed, an advertiser enters a file name of a

file keeping image information and item information (a file existing within his or her own shop terminal 1-1) into an input column of a file name. For example, when the image information expressing an advertisement image is stored in a file named FA1, the "FA1" is input into the input column of the file name corresponding to the item name "advertisement image", when a map showing the site of a shop is stored in a file named FA2, the "FA2" is input into the input column of the file name corresponding to the item "map". When input of the file names is completed, the advertiser clicks the send button 132. It is not necessary to input a file name as for all the items established in the input section 131.

[0038]

When the send button 132 is clicked, the advertisement information registration requesting unit 11-1 accepts all the file names established in the input section 131, and gets the information stored in the file having the same file name (Step A2). Then, it sends a registration request including the information obtained in Step A2 and the shop name where the shop terminal 1-1 is set (for example, "restaurant A"), to the advertisement panel control terminal 2 through the communication network 5 (Step A3). The corresponding item names are added to the respective information included in the registration request.

[0039]

The advertisement information registering unit 211 within the advertisement panel control terminal 2 creates control information (Step B1 in Fig. 4), upon receipt of the registration request from the shop terminal 1-1. The control information includes the

advertisement panel number "001" of the advertisement panel system 3-1 which is assigned to the shop terminal 1-1, the shop name "restaurant A" where the shop terminal 1-1 is set, the item names "advertisement image, map, special menu, reservation state, ...", included in the registration request, and the file names "IMG-001, MAP-001, SP-001, RSV-001, ..." of the files storing the information corresponding to the above item names. Of the file names, a predetermined symbol for every item is defined in the portion before "-", and the advertisement panel number "001" of the advertisement panel system 3-1 which is assigned to the shop terminal 1-1 is set in the portion after "-".

[0040]

Then, the advertisement information registering unit 211 registers the advertisement information including the control information created in Step B1, the file "IMG-001" storing the image information, and the files "MAP-001", "SP-001", "RSV-001", ... storing the respective items of the detailed information, into the advertisement information storing unit 22, as shown in Fig. 5 (Step B2).

[0041]

When the advertisement information of the shop terminal 1-1 is registered into the advertisement information storing unit 22, the display controlling unit 214-1 corresponding to the shop terminal 1-1 supplies the image information stored in the file "IMG-001" to the advertisement panel system 3-1 corresponding to the shop terminal 1-1. Thus, the advertisement displaying unit 32-1 within the advertisement panel system 3-1 displays an image according to the above



image information.

[0042]

This time, the operation at a time of advertisement information update will be described by taking an example of the case of updating the advertisement information on the side of the shop terminal 1-1. An advertiser owning the shop terminal 1-1 activates the advertisement information update requesting unit 12-1 by using the input/output unit 13-1 when updating the advertisement information.

[0043]

Thus, the advertisement information update requesting unit 12-1 displays the file name input screen on the input/output unit 13-1 (Step C1 in Fig. 6). This file name input screen has the structure as shown in Fig. 3.

[0044]

When the file name input screen is displayed, an advertiser enters a file name of a file keeping the updated content, into an input column of the file name corresponding to the item to update the content. For example, when updating the content of the item "special menu" of the detailed information, he or she enters the file name of the file (for example, FA10) storing the updated special menu into the input column of the file name corresponding to the item name "special menu". When the input of the file name is completed, he or she clicks the send button 132.

[0045]

Thus, the advertisement information update requesting unit 12-1 accepts all the file names set on the file name input screen and gets the information

stored in the file having the corresponding file name (Step C2). In the case of this example, since the file name FA10 corresponding to the special menu is set on the file name input screen, the advertisement information updating unit 12-1 obtains the content of the file FA10.

[0046]

Thereafter, the advertisement information update requesting unit 12-1 sends the update request including the content of the file FA10 obtained in Step C2 and the shop name "restaurant A" where the shop terminal 1-1 is set, to the advertisement panel control terminal 2 through the communication network 5 (Step C3). The corresponding item name "special menu" is added to the information included in the update request.

[0047]

The advertisement information updating unit 212 within the advertisement panel control terminal 2 extracts the shop name "restaurant A" included in the update request, upon receipt of the update request from the shop terminal 1-1 (Step D1 in Fig. 7). Then, the advertisement information updating unit 212 retrieves the control information on the shop name "restaurant A" from the advertisement information storing unit 22, and extracts the file name corresponding to the item "special menu" from the retrieved control information (Step D2). Assuming that the control information is as shown in Fig. 5, for example, the file name "SP-001" will be extracted. The advertisement information updating unit 212 replaces the content of the file name "SP-001" with the information included in the update request (information relative to the special menu) (Step

D3).

[0048]

This time, the operation when a user owning the information portable unit 4 refers to the detailed information will be described.

[0049]

When a user sees an advertisement image displayed on the advertisement panel system (for example, the advertisement panel system 3-1) and wants to know the detailed information of the shop, the user directs the sending portion of electric waves and infrared rays of the information portable unit 4 to the advertisement panel 3-1 and presses the reference request button (not illustrated) provided on the operation unit 42.

[0050]

The detailed information requesting unit 43 within the information portable unit 4 supplies the detailed information reference request through the sending/receiving unit 44 (Step E1 in Fig. 8). Upon receipt of the detailed information reference request sent from the information portable unit 4, the sending/receiving unit for portable unit 31-1 within the advertisement panel system 3-1 adds the advertisement panel number "001" of itself to the same request, hence to pass it to the advertisement panel control terminal as shown in Fig. 9.

[0051]

Upon receipt of the detailed information reference request with the advertisement panel number "001" added there, the detailed information referring unit 213 within the advertisement panel control terminal 2 extracts the added advertisement panel number "001"

(Step F1 in Fig. 10). Then, the detailed information referring unit 213 retrieves the control information on the advertisement panel number "001" from the advertisement information storing unit 22 (Step F2). When it found the control information on the advertisement panel number "001", it creates an item list based on the content and returns it to the advertisement panel system 3-1 (Step F3). For example, assuming that the control information as shown in Fig. 5 has been found in Step F2, it will return the item list including the item names "map, special menu, reservation state, ..." to the advertisement panel system 3-1, in Step F3. This item list is sent to the information portable unit 4 through the sending/receiving unit for portable unit 31-1 within the advertisement panel system 3-1 as shown in Fig. 9.

[0052]

When the sending/receiving unit 44 receives the item list, the detailed information requesting unit 43 within the information portable unit 4 displays it on the display unit 41 (Step E2 in Fig. 8).

[0053]

When the item list is displayed on the display unit 41, a user selects an item name of an item he or she wants to refer to therefrom. For example, assuming that the item name "map" is selected (YES in Step E5), the detailed information requesting unit 43 sends the selected item name "map" to the advertisement panel system through the sending/receiving unit 44, hence into a wait state of receiving the detailed information (Step E6).

[0054]

Upon receipt of the item name "map" sent from the information portable unit 4, as shown in Fig. 9, the sending/receiving unit for portable unit 31-1 within the advertisement panel system 3-1 adds the advertisement panel name "001" to the item name "map", hence to pass it to the advertisement control terminal 2.

[0055]

When the item name "map" with the advertisement panel number "001" added there is sent from the advertisement panel system 3-1, the detailed information referring unit 213 within the advertisement panel control terminal 2 extracts the advertisement panel number "001" at first, as shown in the flow chart of Fig. 11, and retrieves the control information on the advertisement panel number "001" from the advertisement information storing unit 22 (Steps G1, G2). Based on the retrieved control information, it requires the file name "MAP-001" of the file storing the information on the item name "map", passes the content of the file to the advertisement panel system 3-1 as the detailed information, and registers a set of the item name "map" of the accessed detailed information, the access time, and the shop name of the shop where the accessed detailed information is registered, into the access history information storing unit 23 (Steps G3, G4).

[0056]

Upon receipt of the detailed information (map), the sending/receiving unit for portable unit 31-1 within the advertisement panel system 3-1 sends it to the information portable unit 4.

[0057]

When the sending/receiving unit 44 receives the

Page (29)

detailed information (map), the detailed information requesting unit 43 within the information portable unit 4 displays it on the display unit 41 (Step E7 in Fig. 8). When a user wants to refer to the other item of the detailed information, he or she instructs the detailed information requesting unit 43 to display the item list again by using the operation unit 42. Thus, the detailed information requesting unit 43 displays the item list on the display unit 41 (YES in Step E4, Step E8). When finishing the reference to the detailed information, he or she operates the operation unit 42 so as to instruct the detailed information requesting unit 43 to finish the processing. Thus (YES in Step E3), the detailed information requesting unit 43 will finish the processing.

[0058]

A second embodiment of the present invention will be described this time.

[0059]

Fig. 12 is a block diagram showing the second embodiment of the present invention, which comprises a plurality of shop terminals 1-1a to 1-na, an advertisement panel control terminal 2a, a plurality of advertisement panel systems 3-1 to 3-n for the respective shop terminals 1-1a to 1-na, an information portable unit 4a, a communication network 5 for mutually connecting the shop terminals 1-1a to 1-na with the advertisement panel control terminal 2a.

[0060]

The shop terminal 1-1a of this embodiment is different from the shop terminal 1-1 of the first embodiment shown in Fig. 1 in that this embodiment is

provided with the advertisement information update requesting unit 12-1a instead of the advertisement information update requesting unit 12-1 and a storing medium 14-1a instead of the storing medium 14-1, and further with a reservation controlling unit 15-1 additionally.

[0061]

The advertisement information update requesting unit 12-1a has a function of sending an update request of reservation information to the advertisement panel control terminal 2a when receiving the instruction from the reservation controlling unit 15-1, in addition to the function of the advertisement information update requesting unit 12-1 shown in Fig. 1.

[0062]

The reservation controlling unit 15-1 has a function of controlling the reservation information indicating the reservation state stored in a reservation information file (not illustrated) within the own shop terminal 1-1a, a function of updating the reservation information stored in the reservation information file based on the reservation requesting information sent through the communication network 5, and a function of instructing the advertisement information update requesting unit 12-1a to make an update request of the reservation information at updating of the reservation information.

[0063]

The storing medium 14-1a is realized by a disk, a semiconductor memory, and the other storing medium, where a program for working a computer as the shop terminal 1-1a is stored. This program is read out by the

computer, so to control the operation of the computer, thereby realizing the advertisement information registration requesting unit 11-1, the advertisement information update requesting unit 12-1a, and the reservation controlling unit 15-1 on the computer.

[0064]

The advertisement panel control terminal 2a is different from the advertisement panel control terminal 2 shown in Fig. 1 in that it is provided with the advertisement information controlling unit 21a having the reservation request sending/receiving unit 215 additionally, instead of the advertisement information controlling unit 21, and with the storing medium 24a instead of the storing medium 24.

[0065]

The reservation request sending/receiving unit 215 has a function of sending reservation request information sent from the information portable unit 4a through the advertisement panel system 3-i ( $1 \leq i \leq n$ ), to the shop terminal 1-ia through the communication network 5 and a function of sending a reservation complete message and an error message sent from the shop terminal 1-ia, to the information portable unit 4a through the advertisement panel system 3-i.

[0066]

The storing medium 24a is realized by a disk, a semiconductor memory, or the other storing medium, where a program for working a computer as the advertisement panel control terminal 2a is stored. This program is read out by the computer, so to control the operation of the computer, thereby realizing the advertisement information registering unit 211, the advertisement



information updating unit 212, the detailed information referring unit 213, the display controlling unit 214-1 to 214-n, and the reservation request sending/receiving unit 215 on the computer.

[0067]

The information portable unit 4a is different from the information portable unit 4 shown in Fig. 1 in that it is provided with the detailed information requesting unit 43a including the reservation requesting unit 45, instead of the detailed information requesting unit 43. The detailed information requesting unit 43a is realized by a micro processor and a storing medium such as a disk or a semiconductor memory storing a program for working the micro processor as the detailed information requesting unit 43a. The program stored in the storing medium is read out by the micro processor, so to control the operation of the micro processor, thereby realizing the detailed information requesting unit 43a including the reservation requesting unit 45 on the micro processor.

[0068]

The reservation requesting unit 45 has a function of sending the reservation requesting information to the advertisement panel system through the sending/receiving unit 44 by wireless communication, according to a user's instruction.

[0069]

This time, the operation of the embodiment will be described. The operation at a time of registering the advertisement information, updating the advertisement information, and referring to the detailed information is similar to that of the above mentioned first

embodiment, and only the operation at a time of reservation will be described here.

[0070]

For example, assume that a user carrying the information portable unit 4a shows the reservation state of the detailed information of the restaurant A where the shop terminal 1-1a is set, on the display unit 41, by using the advertisement panel system 3-1. Watching the reservation state, the user confirms that there is a vacancy in a desired time zone, and then operates the operation unit 42 so to activate the reservation requesting unit 45.

[0071]

The reservation requesting unit 45 displays the reservation screen as shown in Fig. 14 on the display unit 41 (Step H1 in Fig. 13). This reservation screen contains the reservation state (the content is the same as at a reference), an input column of the reservation indispensable items, a message display column, an end button, a send button, and re-display button.

[0072]

When the reservation screen is displayed, the user operates the operation unit 42 so as to enter the name, the number of people, and the phone number into the input column of the reservation indispensable items corresponding to the desired time zone. In the example of Fig. 14, the name "Yamada", the number of people "four", and the phone number "00-1111-2222" are filled in the input column of the reservation indispensable items corresponding to the time zone 19:00 to 21:00 on March 31. When finishing the input of the reservation indispensable items, the user presses the send button.

[0073]

Thus, the reservation requesting unit 45 sends the reservation requesting information including the reservation time zone "19:00 to 21:00 on March 31", the name "Yamada", the number of people "four", and the phone number "00-1111-2222" to the advertisement panel system through the sending/receiving unit 44 (YES in Steps H4, H5).

[0074]

This reservation requesting information is sent to the advertisement panel system 3-1 as shown in Fig. 15. Upon receipt of the reservation requesting information, the sending/receiving unit for portable unit 31-1 within the advertisement panel system 3-1 adds the advertisement panel number "001" attached on the own advertisement panel system 3-1, to the same information, and sends it to the advertisement panel control terminal 2a.

[0075]

The reservation request sending/receiving unit 215 within the advertisement panel control terminal 2a sends the reservation requesting information sent from the advertisement panel system 3-1, to the shop terminal 1-1a corresponding to the advertisement panel number "001" through the communication network 5, as shown in Fig. 15.

[0076]

Upon receipt of the reservation requesting information, the reservation controlling unit 15-1 within the shop terminal 1-1a checks the consistency of the same information (whether the number of the reserved people is within the number of the vacancies or not)

(Step J1 in Fig. 16).

[0077]

When it is consistent (YES in Step J2), the reservation information stored in the reservation information file is updated according to the received reservation requesting information (Step J3). Thereafter, the reservation controlling unit 15-1 sends the reservation complete message to the advertisement panel control terminal 2a through the communication network 5, and further instructs the advertisement information update requesting unit 12-1a to send the update request (Steps J4, J5). Thus, the advertisement information update requesting unit 12-1a sends the update request including the content of the above reservation information file to the advertisement panel control terminal 2a through the communication network 5.

[0078]

When it is not consistent (NO in J2), the reservation controlling unit 15-1 sends an error message to the advertisement panel control terminal 2a through the communication network 5 (Step J6).

[0079]

When receiving the reservation complete message or the error message from the shop terminal 1-1a, the reservation request sending/receiving unit 215 within the advertisement panel control terminal 2a passes it to the advertisement panel system 3-1, and the advertisement information updating unit 212 updates the reservation information about the shop terminal 1-1a registered in the advertisement information storing unit 22, upon receipt of the update request of the reservation information from the shop terminal 1-1a.

Page (36)

[0080]

Upon receipt of the reservation complete message or the error message from the advertisement panel control terminal 2a, the sending/receiving unit for portable unit 31-1 within the advertisement panel system 3-1 sends it to the information portable unit 4a.

[0081]

When the sending/receiving unit 44 receives the reservation complete message or the error message, the reservation requesting unit 45 within the information portable unit 4a displays it in the message display column on the reservation screen (Step H6 in Fig. 13).

[0082]

When the reservation complete message is displayed on the message display column, a user presses the end button, so to finish the processing (Step H2). When the error message is displayed, a user presses the re-display button. Thus, the reservation requesting unit 45 displays the reservation screen on the display unit 41 again (YES in Steps H3, H7). When the reservation screen is displayed again, he or she uses it so as to make a reservation again.

[0083]

[THE EFFECT OF THE INVENTION]

First, the present invention can update an advertisement image immediately and lessen the burden of an advertiser. This is because the advertisement information is to be registered and updated through the communication network, and therefore an advertiser does not need to go to a setting place of the advertisement panel system.

[0084]

Page (37)

Second, it can display the content of an update advertisement without imposing much load on a communication network. This is because the advertisement information is stored in the advertisement control terminal and the communication network is used only at a time of updating the content.

[0085]

Third, it can present not only an advertisement image but also the detailed information such as a map for introducing a shop in detail, reservation state, and the like to a user. This is because the information portable unit carried by a user is provided with the detailed information requesting unit and the advertisement panel system is provided with the sending/receiving unit for portable unit, thereby exchanging the detailed information reference request and the detailed information between the information portable unit and the advertisement panel control terminal through the advertisement panel system.

[0086]

Fourth, it can make an effective advertisement taking the focus on the consumers comparatively in the neighborhood of a shop. This is because it can provide the attractive visual image information and the detailed information of the update content depending on a necessity in their combination.

[0087]

Fifth, it enables an advertiser to get necessary information for the future commercial activities. This is because the access history to the detailed information is to be stored.

[0088]

Sixth, it enables a user to make a reservation at ease. This is because the reservation requesting unit, the sending/receiving unit for portable unit, the reservation request sending/receiving unit, and the reservation controlling unit are respectively provided with the information portable unit, the advertisement panel system, the advertisement panel control terminal, and the shop terminal, thereby making it possible to send the reservation requesting information from the information portable unit to the shop terminal through the advertisement panel system, the advertisement panel control terminal, and the communication network.

[BRIEF DESCRIPTION OF THE DRAWINGS]

[Fig. 1] Fig. 1 is a block diagram showing a first embodiment of the present invention.

[Fig. 2] Fig. 2 is a flow chart showing a processing example of each advertisement information registration requesting unit 11-1 to 11-n.

[Fig. 3] Fig. 3 is a view showing an example of a file name input screen.

[Fig. 4] Fig. 4 is a flow chart showing a processing example of an advertisement information registration unit 211.

[Fig. 5] Fig. 5 is a view showing the content example of an advertisement information storing unit 22.

[Fig. 6] Fig. 6 is a flow chart showing a processing example of each advertisement information update requesting unit 12-1 to 12-n.

[Fig. 7] Fig. 7 is a flow chart showing a processing example of an advertisement information updating unit 212.

[Fig. 8] Fig. 8 is a flow chart showing a

processing example of a detailed information requesting unit 43.

[Fig. 9] Fig. 9 is a view showing the information to be exchanged at a reference time to the detailed information.

[Fig. 10] Fig. 10 is a flow chart showing a processing example of a detailed information referring unit 213.

[Fig. 11] Fig. 11 is a flow chart showing another processing example of the detailed information referring unit 213.

[Fig. 12] Fig. 12 is a block diagram showing a second processing example of the present invention.

[Fig. 13] Fig. 13 is a flow chart showing a processing example of a reservation requesting unit 45.

[Fig. 14] Fig. 14 is a view showing an example of a reservation screen.

[Fig. 15] Fig. 15 is a view showing the information to be exchanged at a reservation.

[Fig. 16] Fig. 16 is a flow chart showing a processing example of each reservation controlling unit 15-1 to 15-n.

[THE DESCRIPTION OF THE NUMERALS]

1-1 to 1-n, 1-1a to 1-na: shop terminal

11-1 to 11-n: advertisement information registration requesting unit

12-1 to 12-n, 12-1a to 12-na: advertisement information update requesting unit

13-1 to 13-n: input/output unit

14-1 to 14-n, 14-1a to 14-na: storing medium

15-1 to 15-n: reservation controlling unit

2, 2a: advertisement panel control terminal



21, 21a: advertisement information controlling  
unit  
211: advertisement information registering unit  
212: advertisement information updating unit  
213: detailed information referring unit  
214-1 to 214-n: display controlling unit  
215: reservation request sending/receiving unit  
22: advertisement information storing unit  
23: access history storing unit  
24, 24a: storing medium  
3-1 to 3-n: advertisement panel system  
31-1 to 31-n: sending/receiving unit for portable  
unit  
32-1 to 32-n: advertisement displaying unit  
4, 4a: information portable unit  
41: display unit  
42: operation unit  
43, 43a: detailed information requesting unit  
44: sending/receiving unit  
45: reservation requesting unit

Page (41)

[THE NAME OF DOCUMENT] ABSTRACT

[ABSTRACT]

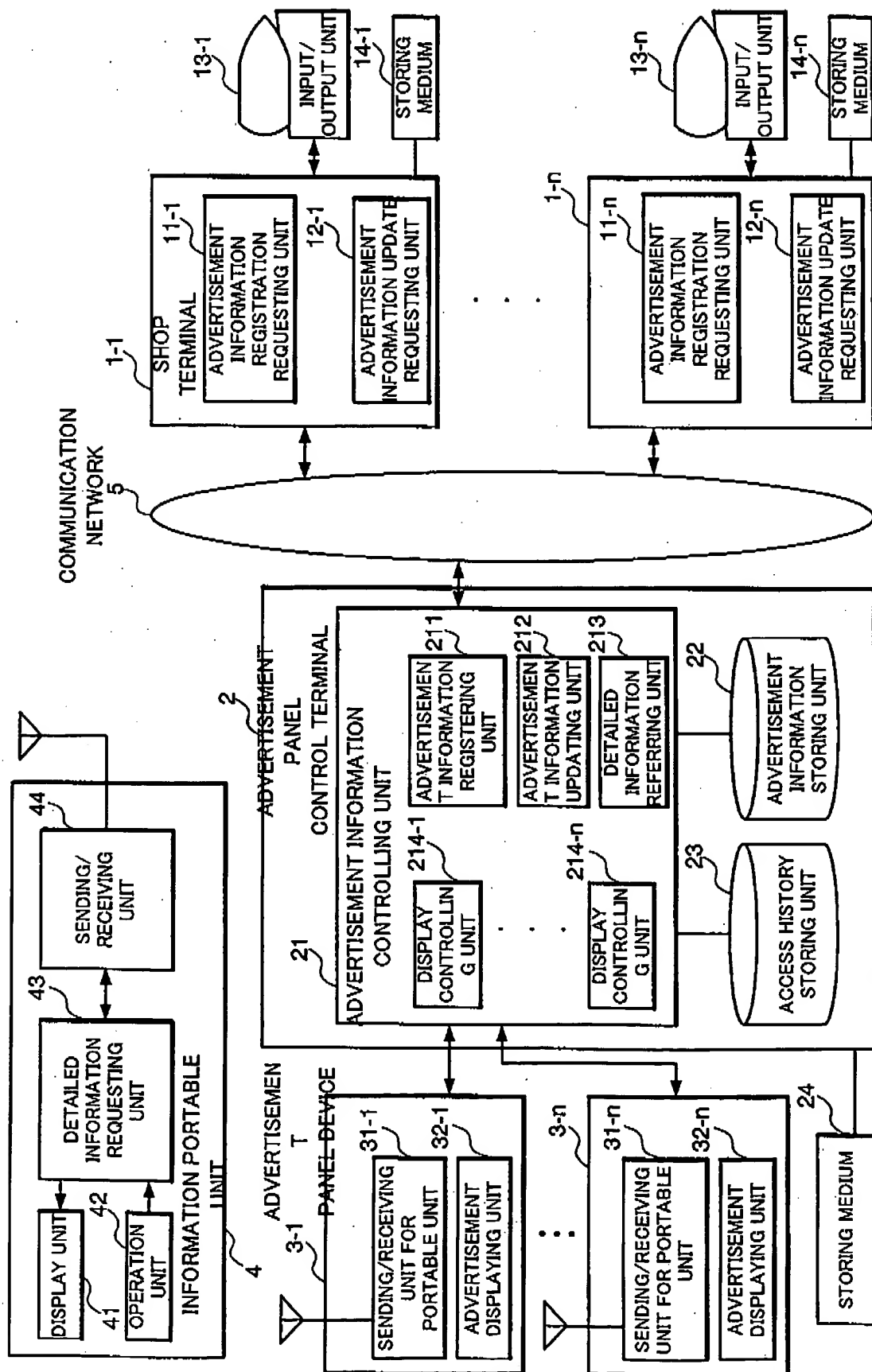
[OBJECT] The present invention provides a shop information advertisement panel system capable of updating an advertisement image quickly and lessening the burden of an advertiser.

[CONSTITUTION] An advertiser owning the shop terminal 1-1 registers advertisement information including image information and detailed information to an advertisement information storing unit 22 through the communication network 5. And, updating of the registered advertisement information is performed through the communication network 5. The display controlling unit 214-1 supplies the image information stored in advertisement information corresponding to the shop terminal 1-1 storing unit 22 to the advertisement panel system 3-1. Thus, the advertisement image is displayed. When a user sees an advertisement image displayed on the advertisement panel system and wants to know the detailed information of the shop, the user sends the detailed information reference request to the advertisement panel system 3-1 by the information portable unit 4. The detailed information reference request is send to the detailed information referring unit 213 through the advertisement panel system 3-1. The detailed information referring unit 213 sends the detailed information of the shop to the information portable unit 4 through the advertisement panel system 3-1.

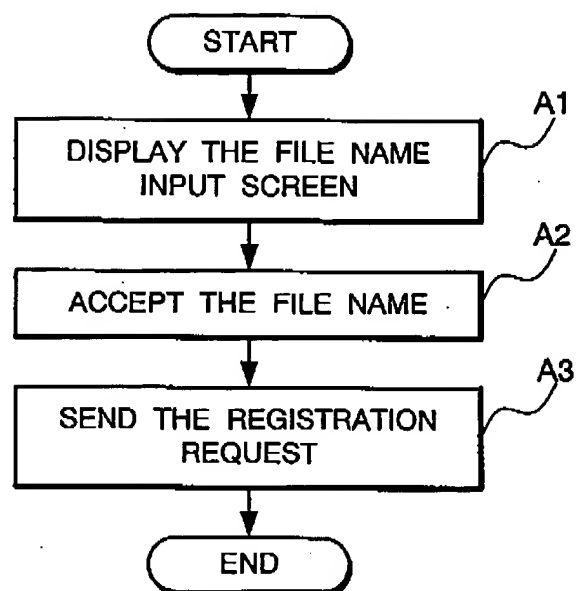
[SELECTED DRAWING] Fig. 1

[THE NAME OF DOCUMENT] DRAWINGS

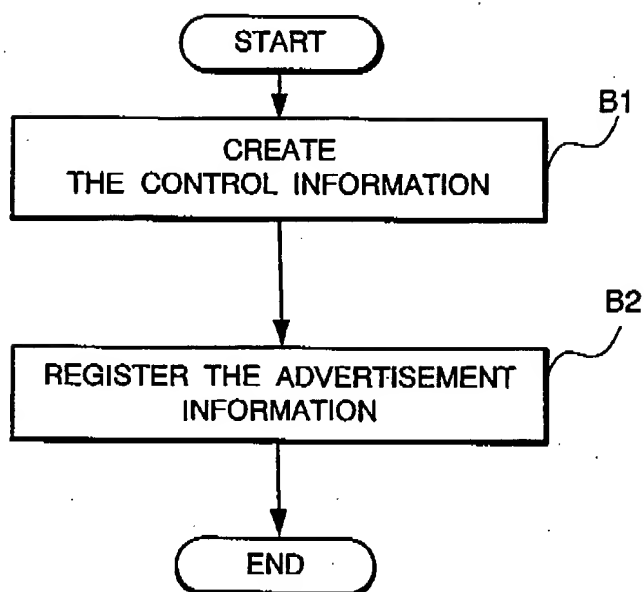
[FIG. 1]



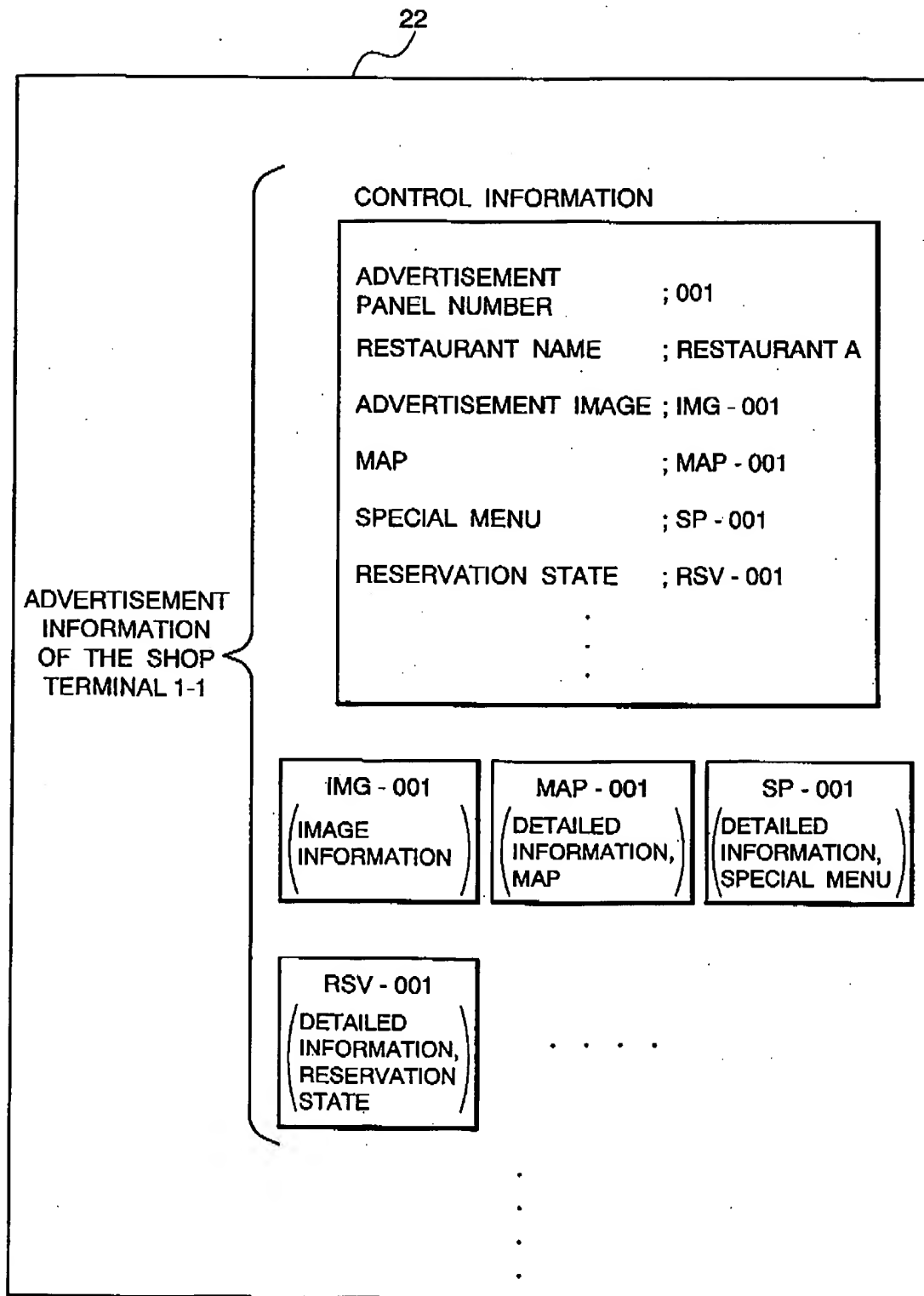
[FIG. 2]



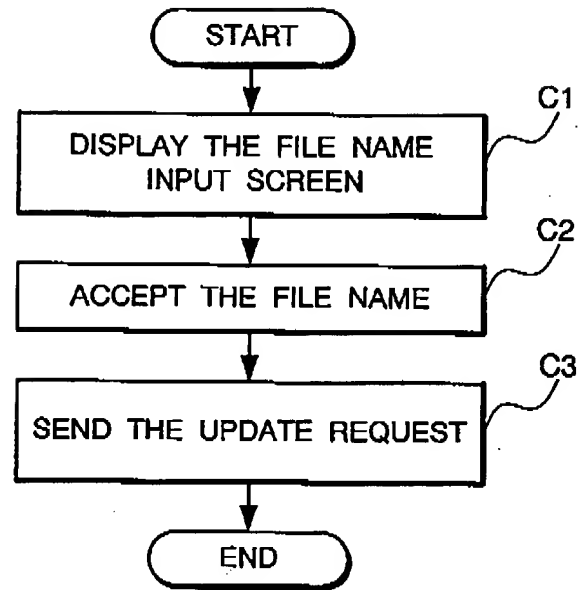
[FIG. 4]



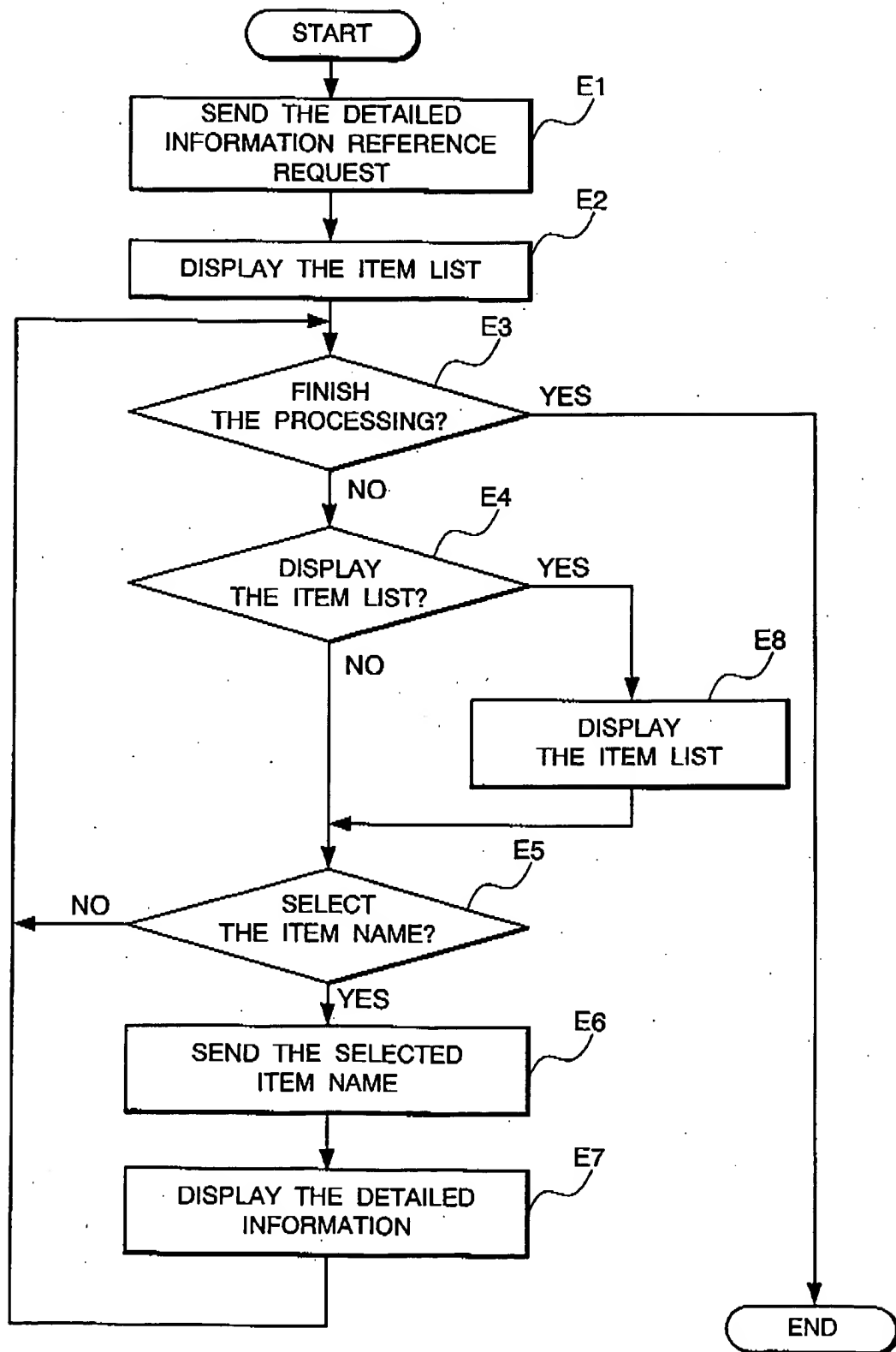
[FIG. 5]



[FIG. 6]



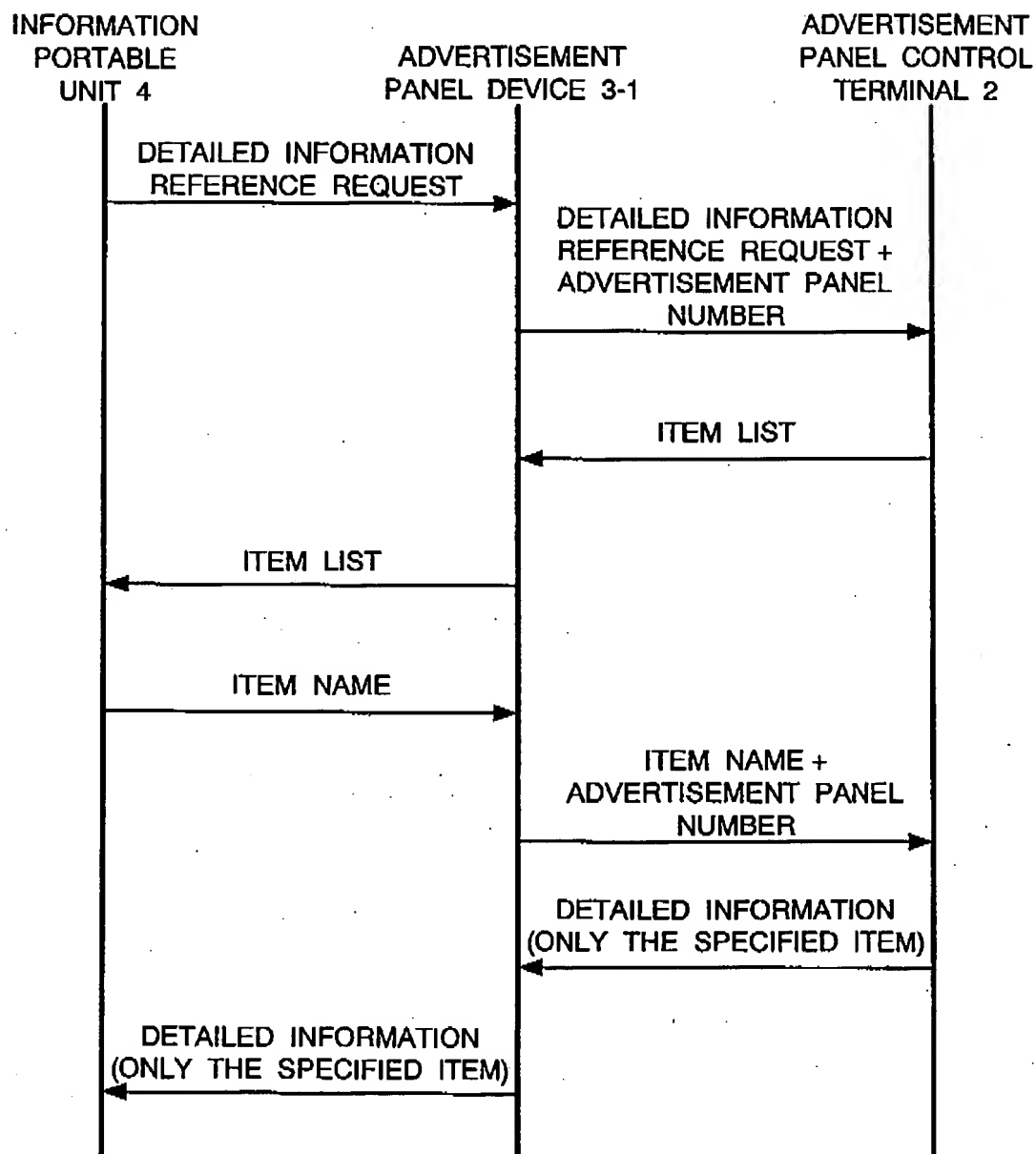
[FIG. 8]



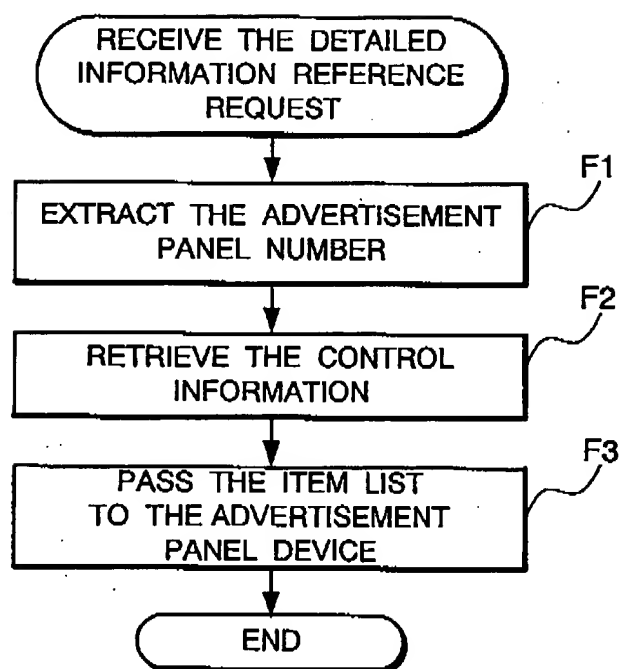


9/16

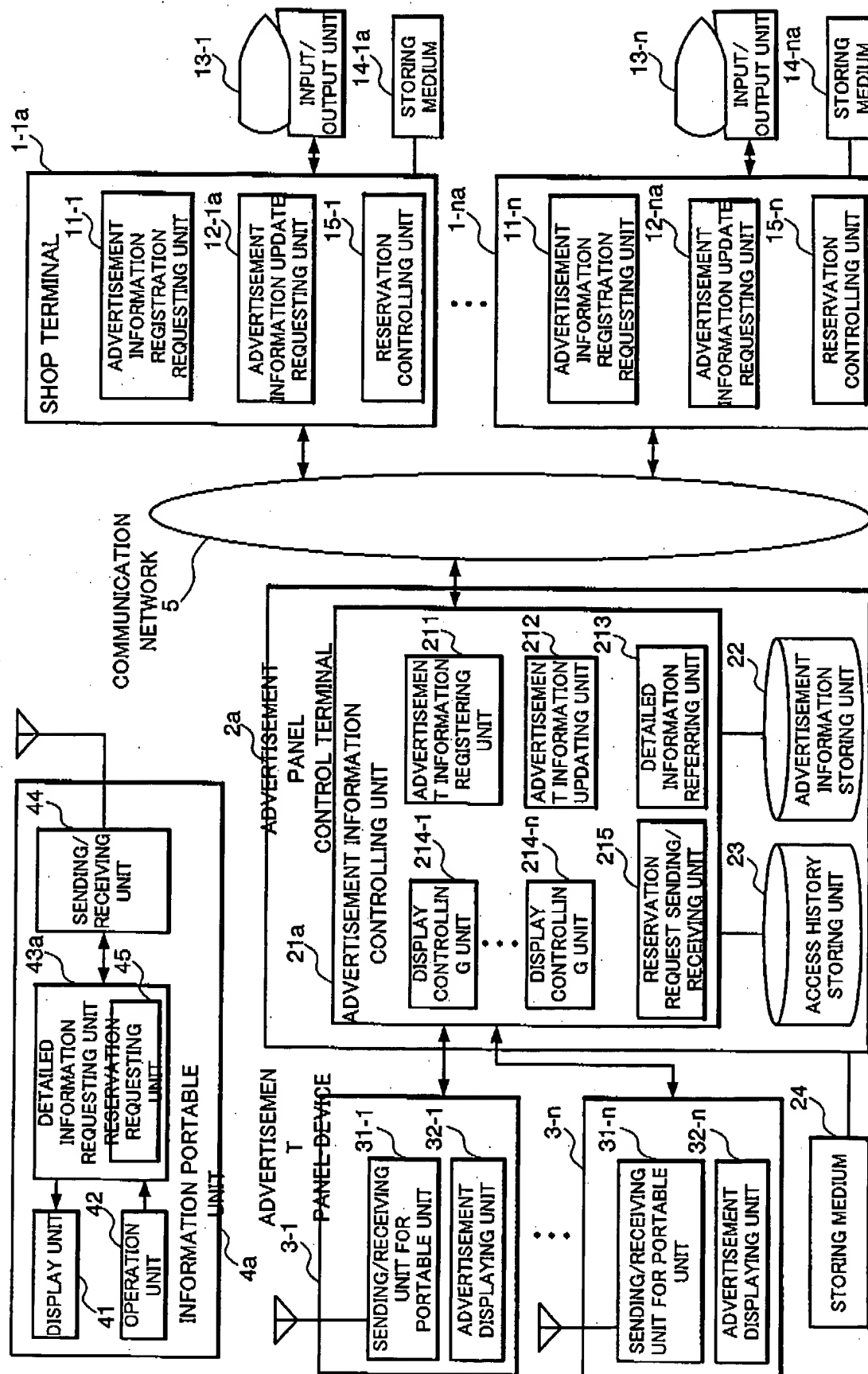
[FIG. 9]



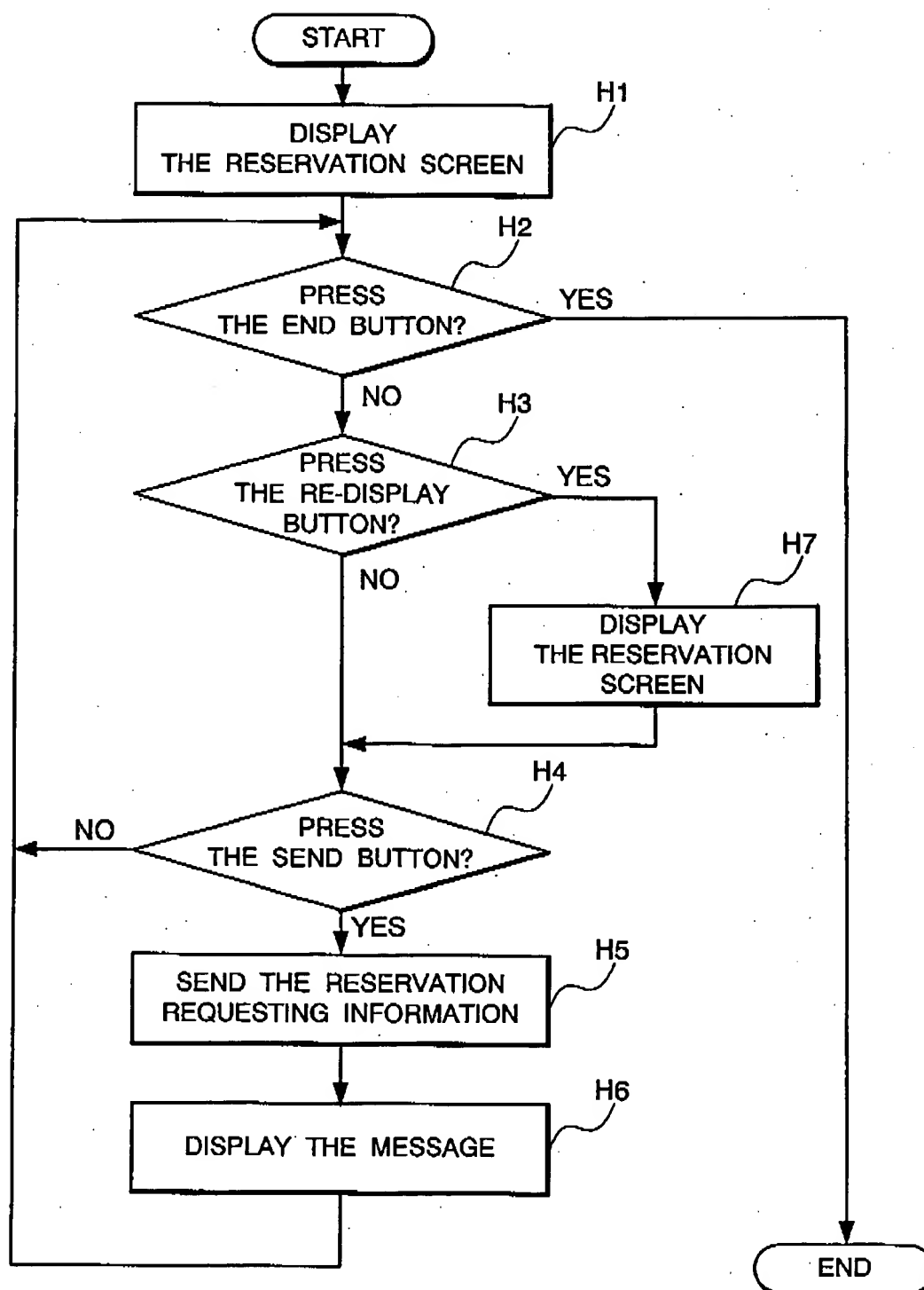
[FIG. 10]



[FIG. 12]



[FIG. 13]



14/16

[FIG. 14]

RESTAURANT A	RESERVATION STATE DISPLAY	< AT 17:20 ON MARCH 20 >
3/31 (FRIDAY)	STATE	VACANCY
17:00 - 19:00	FULL	0
19:00 - 21:00	VACANCY	10
21:00 - 23:00	FULL	0
4/1 (SATUADAY)		

INPUT COLUMN OF THE RESERVATION INDISPENSABLE ITEMS	NAME	NUMBER OF PEOPLE	TEL
	X	X	X
	YAMADA	4	00-XXXX-△△△△

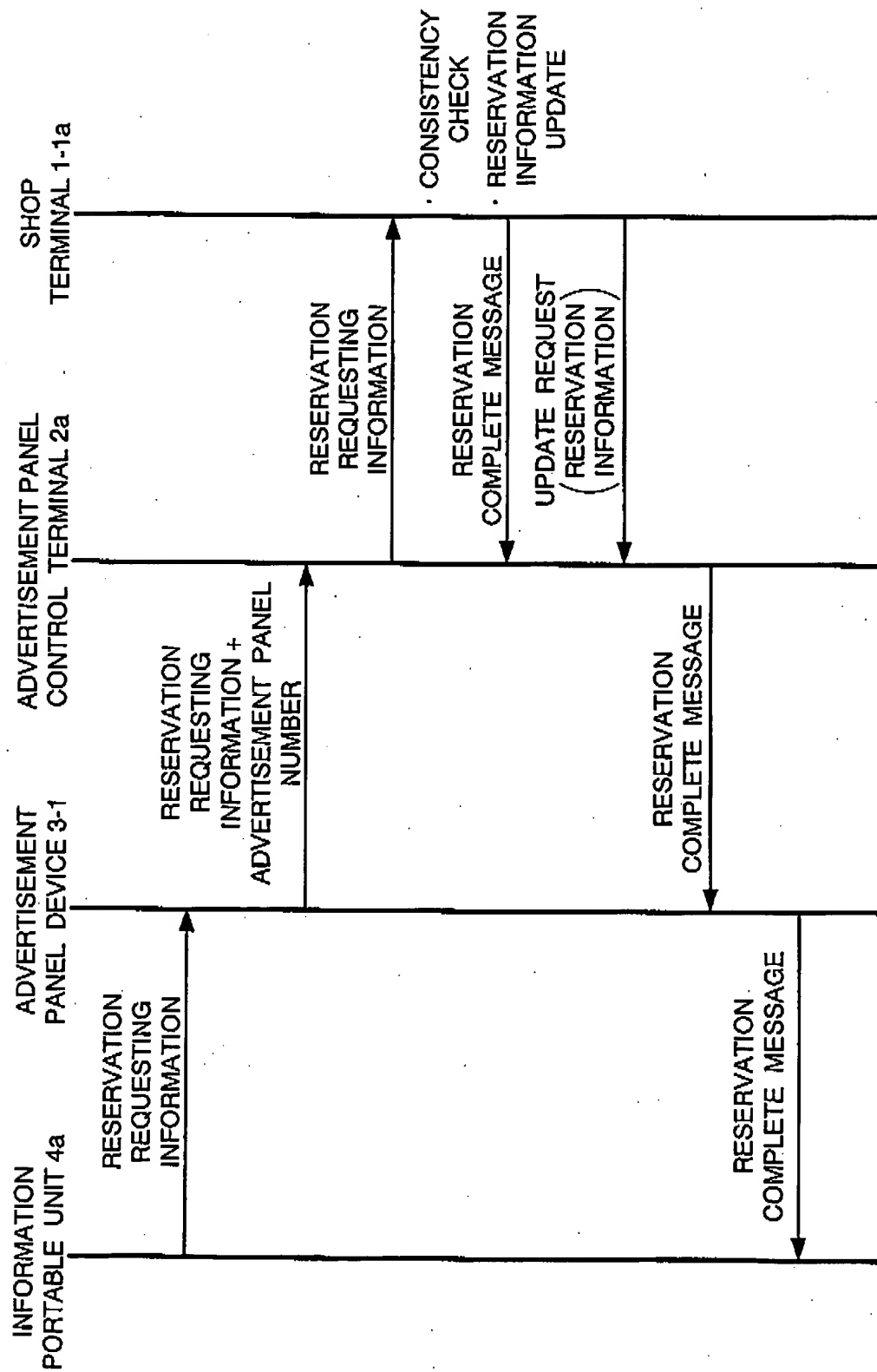
MESSAGE DISPLAY COLUMN

END

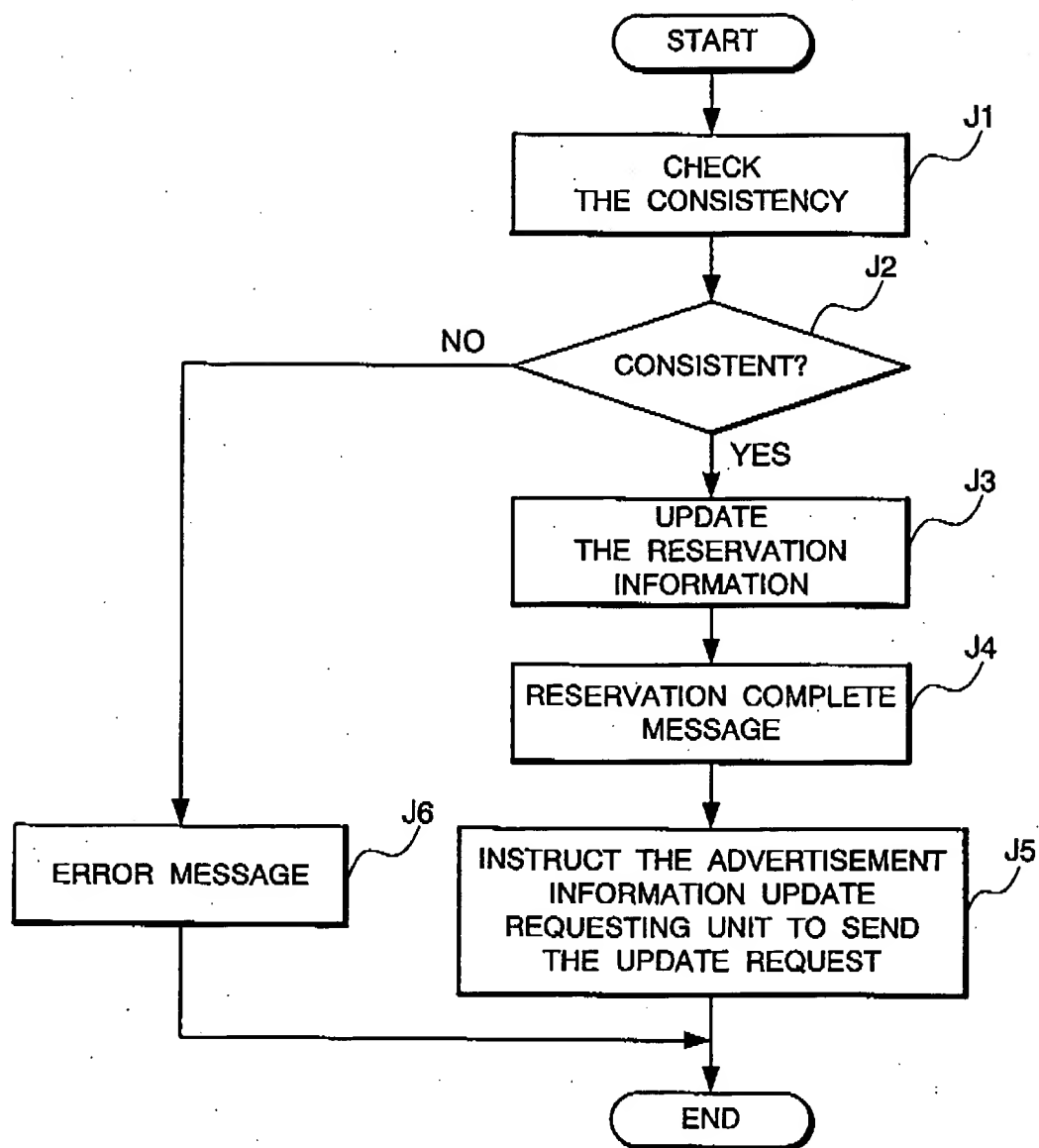
SEND

RE-DISPLAY

[FIG. 15]



[FIG. 16]



[FIG. 3]

131 INPUT UNIT

ITEM NAME	FILE NAME
ADVERTISEMENT IMAGE	
MAP	
SPECIAL MENU	
RESERVATION STATE	
⋮	⋮

IMAGE INFORMATION

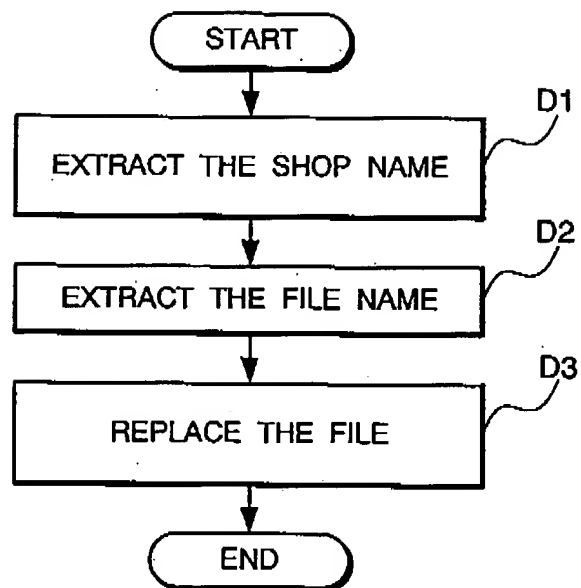
DETAILED INFORMATION

131

SEND



[FIG. 7]



[FIG. 11]

